

Proposed List of Air District Measures to Reduce Particulate Matter

District Programs to Reduce PM Emissions from Wood-Burning Fireplaces and Wood-Burning Heaters*

*(wood-burning heaters include woodstoves and fireplace inserts)

Adopted Strategies

The programs are primarily intended to reduce directly emitted PM₁₀ and PM_{2.5} (reducing mostly the fine portion), and as an added benefit to reduce NO_x, VOC, CO, and air toxic emissions.

| | Strategy | Source Type | District, Rule, and Adoption Date* |
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| 1. | Public Awareness Program Informs the public about the indoor wood combustion control program. The program covers three areas: program effectiveness and tracking; key program elements; and communication strategy. The goal is to inform the public about potential health hazards of wood smoke and to encourage better wood burning practices or use of heating devices. | Existing | SJVAPCD Rule 4901 7/17/03 |
| 2. | Curtailment During Periods with Predicted High PM Levels <ul style="list-style-type: none"> Mandatory Restricts use of wood-burning fireplaces and heaters during periods when atmospheric conditions and the level of wood burning activity are predicted to result in high PM concentrations. Exempts households that use wood as primary sole source of heat and households in areas where natural gas service is not available. Prohibits use of wood-burning appliances during periods when atmospheric conditions and the level of wood burning activity are predicted to result in high PM concentrations. A secondary source of heat is required in all dwellings. Voluntary Informs the public about periods predicted to have high PM concentrations and encourages public to refrain from using wood burning fireplaces and heaters during such periods. | Existing | SJVAPCD Rule 4901 7/17/03 GBUAPCD for the Town of Mammoth Lakes Rule 431 12/07/90 SCAQMD, YSAQMD Programs |

*Date when rule was adopted or last amended

| | Strategy | Source Type | District, Rule, and Adoption Date* |
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| 3. | <p>Require All Specified Wood Burning Devices Installed be U.S. EPA-Certified, Phase II or Equivalent</p> <ul style="list-style-type: none"> Wood Burning Heaters Prevents the sale and installation of wood heaters that are not U.S. EPA-certified or equivalent. These wood heaters must meet Phase II standards established in Subpart AAA of Part 60 of Title 40 of the Code of Federal Regulations. Phase II devices are designed to achieve more efficient combustion and lower particulate emissions than conventional devices. Wood Burning Heaters and Wood Burning Fireplaces Prevents the sale and installation of wood heaters and wood burning fireplaces that emit PM in higher concentrations than specified for U.S. EPA certified Phase II wood heaters and is either district or U.S. EPA certified. The requirement also applies to masonry fireplaces. Prohibits the Installation of Non-EPA Certified Wood Burning Appliances & Wood Burning Fireplaces (except pellet stoves) Prohibits the installation of any non-U.S. EPA certified wood-burning appliance in dwellings, except for pellet stoves. Prohibits the installation of wood burning fireplaces, including low emission fireplaces that are exempt from U.S. EPA testing. | New and modified | <p>SJVAPCD Rule 4901 7/17/03</p> <p>NSoCAPCD 4-1-400 2/2/93 and SLOAPCD Rule 504 10/19/93</p> <p>GBUAPCD for the Town of Mammoth Lakes Rule 431 12/07/90</p> |
| 4. | <p>Number of Units</p> <ul style="list-style-type: none"> New Residential Developments Limits the number of wood-burning fireplaces and wood-burning heaters that may be installed in new residential developments. New Nonresidential Properties Limits the number of wood-burning appliances that may be installed in new nonresidential properties. | New | <p>SJVAPCD Rule 4901 7/17/03</p> <p>GBUAPCD for the Town of Mammoth Lakes Rule 431 12/07/90</p> |

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| | Strategy | Source Type | District, Rule, and Adoption Date* |
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| 5. | Additional Units in Existing Properties Limits the number of additional wood-burning appliances that may be installed in existing residential and nonresidential properties. | New | GBVUAPCD for the Town of Mammoth Lakes Rule 431 12/07/90 |
| 6. | Replacement of Non-Certified Appliances <ul style="list-style-type: none"> Upon Sale of Property Assures that each wood-burning heater included in real property upon sale or transfer is U.S. EPA Phase II certified or equivalent. Non-complying devices must be removed or rendered inoperable. Requires replacing, removing or rendering inoperable any non-EPA certified wood-burning appliance upon sale of a dwelling (excluding pellet stoves, but including fireplaces). | Existing | SJVAPCD Rule 4901 7/17/03 GBUAPCD for the Town of Mammoth Lakes Rule 431 12/07/90 |
| 7. | Opacity Limits (Visible Emission Limits) Sets opacity standard as a measurable indicator of PM10 emissions that allow agency staff to recognize wood burning devices that are out of compliance | New, existing, and modified | GBVUAPCD for the City of Mammoth Rule 431 12/07/90 |
| 8. | Control of Wood Moisture Content Sets moisture standard for “seasoned wood” offered for sale, since burning dry wood increases heating performance. | New, existing, and modified | SJVAPCD Rule 4901 7/17/03 |
| 9. | Prohibit Fuel Types Prohibits the burning of materials not intended by for use in wood-burning fireplaces and wood-burning heaters (e.g., garbage, treated wood, and plastic products). | New, existing, and modified | SJVAPCD Rule 4901 7/17/03 |

Reference: District rules and regulations can be obtained at <http://www.arb.ca.gov/drdb/drdb.htm>

*Date when rule was adopted or last amended

District Programs to Reduce PM Emissions from Non-Agricultural Open Burning

Adopted Strategies

Measure implementation reduces directly emitted PM₁₀ and PM_{2.5} (reducing mostly the fine portion), VOC, NO_x, CO, and air toxic emissions.

| | Strategy | Source Type | District, Rule, and Adoption Date* |
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| 10. | <p>Prohibition of Residential Open Burning</p> <ul style="list-style-type: none"> <i>Of All Outdoor Residential Open Burning</i> Prohibits outdoor residential open burning. Limits open burning to permitted activities (e.g., agricultural burning, infectious disease, wildland vegetation management) or exempted activities (ceremonial fires, recreational fires, cooking fires, etc.) <i>Where Waste Service is Available</i> Prohibits burning of greenwaste if served by an organized waste disposal service. No other residential waste may be burned anywhere. <i>In Specified Highly Populated Areas</i> Prohibits outdoor burning of green waste in populated areas in specified geographical locations. <i>Within Small Lots and Setbacks</i> Prohibits outdoor burning of natural vegetation from the premises on lots smaller than one acre in size, where the burn pile is less than 100 feet from neighboring residence, or where greenwaste collection is offered by a franchise hauler. | Existing | <p>SJVAPCD Rules 4103 & 4106 6/21/01</p> <p>MBUAPCD Rule 438 4/16/03</p> <p>SMAQMD Rule 407 6/4/98</p> <p>LCAQMD Rule 433 10/15/02</p> |
| 11. | <p>Mandatory Curtailment of Non-Agricultural Open Burning</p> <ul style="list-style-type: none"> <i>During Periods with Predicted High PM or Ozone Levels</i> Prohibits planned burning or further ignitions during days when atmospheric conditions and the level of open burning are predicted to result in high PM or ozone concentrations (can prohibit additional burns on burn days). <i>During Fire Season</i> Prohibits all non-agricultural burning during wild fire season. | Existing | <p>MBUAPCD Rule 438 4/16/03</p> <p>LCAQMD Rules 431- 433.5 2/12/03</p> |

*Date when rule was adopted or last amended

| | Strategy | Source Type | District, Rule, and Adoption Date* |
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| 12. | Mandatory Curtailment of Non-Agricultural Open Burning (continuation) <ul style="list-style-type: none"> • <i>During non-Rainy Season</i> Residential burning allowed only between December 1 and April 30. | Existing | MBUAPCD Rule 438 4/16/03 |
| 13. | Control Smoke Production <ul style="list-style-type: none"> • <i>Limits during Burn Days in Smoke Sensitive Areas</i> Requires Fire Chief to grant permit and limit burns to 25 per day in specific Smoke Sensitive Area (defined by rule); permit is only valid with daily authorization number. • <i>Emission Limits for Mechanized Burners</i> Sets emission limits for mechanized burners not to equal or exceed No. 1 on Ringelmann Chart published by the U.S. Bureau of Mines for periods aggregating more than 30 minutes in any eight-hour period. Requires burning permit. | Existing | MBUAPCD, Rule 438 4/16/03 ShCAQMD Rule 2.6 9/24/02 |
| 14. | Performance Standards for Allowed Burns <ul style="list-style-type: none"> • <i>Drying Times</i> Establishes minimum drying times for any green waste to be burned and pile size limits. Sets bounds on time of day for ignition and completion. • <i>Burn Duration</i> Restricts ignition hours and requires smoldering fires to be extinguished. • <i>Preparation of Fuels & Management of Burns</i> Sets requirements for burn piles (e.g. stack to ignite quickly, burn with minimum of smoke, ignite only for burn within same day, avoid public nuisance) prior and during burning. Sets requirements for burns on land to be cleared for residential or commercial development. APCO can restrict or prohibit the burning of poison oak • <i>Permits Required</i> Requires permits for all types of outdoor burning. | Existing | BAAQMD Regulation V 11/2/94 LCAQMD Rules 431- 433.5 10/15/02 MaCAPCD Rule 300 et. seq. 7/19/88 MBUAPCD Rule 438 4/16/03 SCAQMD Rule 208 12/21/01 |

Reference: District rules and regulations can be obtained at <http://www.arb.ca.gov/drdb/drdb.htm>

*Date when rule was adopted or last amended

District Fugitive Dust Rules

Adopted Strategies

The strategies are primarily intended to reduce directly emitted PM₁₀ (primarily the coarse portion).

| | Strategy | Source Type | District, Rule, and Adoption Date* |
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| 15. | <p>Construction: Earthmoving</p> <ul style="list-style-type: none"> Requires water or chemical stabilizers/dust suppressants be applied, in conjunction with optional wind barriers, to limit visible dust emissions (VDE) to 20% opacity. Specifies that a Dust Control Plan must be submitted for areas of 40 acres or larger where earth movement of 2500 cubic yards or more on at least 3 days is intended. Prohibits VDE beyond property line and an upwind/downwind PM₁₀ differential of more than 50 µg/m³. Requires implementation of Best Available Control Measures (BACM) for all sources such that visible emissions do not exceed 100 feet from the point of origin. List of BACM contained in the Rule 403 Implementation Handbook. Specifies that a Dust Control Plan or a commitment to implement Table 1 and 2 control measures through a large operation notification (LON) is required for Large Operations (projects with a disturbed surface area 100 acres or larger, or projects with daily earth movement of 10,000 cubic yards or more, is intended). <p>Note: This rule was amended April 2, 2004. The amendments incorporate new list of BACM and implements new requirements (project signage, dust control supervisor) for large operations (now defined as 50 acres or 5,000 cubic yards of daily earth-movement).</p> | <p>Existing</p> <p>Existing</p> | <p>SJVAPCD Rule 8021 11/15/01</p> <p>SCAQMD Rule 403 12/11/98</p> |
| 16. | <p>Construction: Demolition</p> <ul style="list-style-type: none"> Requires application of dust suppressants to limit VDE to not more than 20% opacity. Sets bulk material and track-out requirements. Prohibits VDE beyond property line. Requires application of best available control measures (BACM). Specifies that upwind-downwind PM₁₀ levels must not exceed 50 ug/m³. Sets track-out requirements. <p>(continuation on next page)</p> | <p>Existing</p> <p>Existing</p> | <p>SJVAPCD Rule 8021 11/15/01</p> <p>SCAQMD Rule 403 12/11/98</p> |

*Date when rule was adopted or last amended

| | Strategy | Source Type | District, Rule, and Adoption Date* |
|-----|--|---------------------------------|---|
| | <p>Construction: Demolition (continuation)</p> <p>Note: This rule was amended April 2, 2004. The amendments require track-out control device for projects greater than 5 acres or 100 cubic yards of daily import/export and lowers track-out clean-up prohibitions from 50 to 25 feet.</p> | | |
| 17. | <p>Construction: Grading Operations</p> <ul style="list-style-type: none"> Requires pre-watering to limit VDE to 20% opacity. Requires phasing of work to reduce disturbed soil. Requires water application to increase moisture content to proposed cut, and grading each phase separately to coincide with the construction phase. Specifies that chemical stabilizers are to be applied to graded areas where construction will not begin for more than 60 days after grading. <p>Note: This rule was amended April 2, 2004. The amendments require new Table 1 BACM (e.g., pre-application of water to depth of proposed cuts, reapplication of water as necessary to ensure that visible emissions do not extend more than 100 feet from the sources, and stabilization of soils once earth-moving is complete).</p> | <p>Existing</p> <p>Existing</p> | <p>SJVAPCD Rule 8021 11/15/01</p> <p>SCAQMD Rule 403 12/11/98</p> |
| 18. | <p>Inactive Disturbed Land</p> <ul style="list-style-type: none"> Requires restricting vehicle access. Specifies that water/dust suppressants must be applied to meet stabilized surface definition; if area is greater than 0.5 acres and the area is inactive more than 7 days, must comply with stabilized soil definition. Prohibits VDE beyond property line and an upwind/downwind PM10 differential of more than $50 \mu\text{g}/\text{m}^3$. Requires BACM (e.g., chemical stabilization, frequent watering, and revegetation) at all times and high wind measures (e.g., chemical stabilization to maintain a stabilized surface or watering three times per day) under high wind conditions. <p>Note: This rule was amended April 2, 2004. The amendments clarify new Table 1 BACM.</p> | <p>Existing</p> <p>Existing</p> | <p>SJVAPCD Rule 8021 11/15/01</p> <p>SCAQMD Rule 403 12/11/98</p> |

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| | Strategy | Source Type | District, Rule, and Adoption Date* |
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| 19. | <p>Bulk Materials: Handling/Storage</p> <ul style="list-style-type: none"> Establishes wind barrier and watering or stabilization requirements to limit VDE to 20% opacity. Specifies bulk materials must be stored in accordance with the definition for stabilized surface. Requires outdoor materials be covered with tarps, plastic, etc. Prohibits VDE beyond property line and an upwind/downwind PM10 differential of more than 50 $\mu\text{g}/\text{m}^3$. Requires use of BACM (e.g., wind sheltering, watering, chemical stabilizers, altering load-in/load-out procedures, or coverings). <p>Note: This rule was amended April 2, 2004. The amendments establish new Table 1 BACM (control measures 09-1 through 09-5) for importing/exporting of bulk materials.</p> | <p>Existing</p> <p>Existing</p> | <p>SJVAPCD Rule 8031 11/15/01</p> <p>SCAQMD Rule 403 12/11/98</p> |
| 20. | <p>Bulk Materials: Transport</p> <ul style="list-style-type: none"> Establishes vehicle speed limits such that VDE does not exceed 20% capacity. Requires maintaining at least 6 inches of freeboard when crossing paved public access road; water must be applied to top of load to limit VDE to 20% opacity. Specifies haul trucks must be covered with tarps or other suitable cover and the truck interior must be cleaned before the truck leaves the site. Requires prevention of spillage from holes and openings in the floor, side, or tailgate. Requires covering haul vehicles; use of bottom-dumping vehicles when feasible; and maintaining a minimum 6 inches of freeboard in high wind conditions. <p>Note: This rule was amended April 2, 2004. The amendments establish new Table 1 BACM (control measures 09-1 through 09-5) for importing/exporting of bulk materials.</p> | <p>Existing</p> <p>Existing</p> | <p>SJVAPCD Rule 8031 11/15/01</p> <p>SCAQMD Rule 403 12/11/98</p> |
| 21. | <p>Carryout and Track-out</p> <ul style="list-style-type: none"> Requires track-out removal at the end of the workday, if the track-out is less than 50 feet; or removal as soon as possible if the track-out exceeds 50 feet. Specifies a track-out control device must be installed at all access points to public roads. Requires maintaining sufficient length of paved interior road to allow dirt/mud to drop off before leaving site and mud/dirt removal from interior paved roads with sufficient frequency to prevent track-out. | Existing | SJVAPCD Rule 8041 11/15/01 |

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| | Strategy | Source Type | District, Rule, and Adoption Date* |
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| | <p>Carryout and Track-out (continuation)</p> <ul style="list-style-type: none"> Requires removing any track-out within one hour; or selecting a Table 3 track-out prevention option and removing of track-out at the end of the workday, if the track-out is less than 50 feet, and removing track-out as soon as possible, if it exceeds 50 feet. Table 3 track-out options include road surface paved or chemically stabilized from point of intersection with a public paved road to distance of at least 100 feet by 20 feet or installation of track-out control device from point of intersection with a public paved road to a distance of at least 25 feet by 20 feet. <p>Note: This rule was amended April 2, 2004. The amendments require sites greater than five acres or those with more than 100 cubic yards of daily import/export to install a track-out control device (four options provided) and prohibits material from extending more than 25 feet from a site entrance.</p> | Existing | SCAQMD Rule 403 12/11/98 |
| 22. | <p>Carryout and Track-out: Clean-Up Methods</p> <p>Requires manual sweeping; sweeping with a rotary brush/broom with sufficient wetting to limit VDE to 20% opacity; or operating a PM10 street sweeper with 80% efficiency per SCAQMD Rule 1186.</p> | Existing | SJVAPCD Rule 8041 11/15/01 |
| 23. | <p>Disturbed Open Areas</p> <ul style="list-style-type: none"> Applies to non-agricultural areas of 3 acres or larger which have been unused for 7 days or more. Requires water/dust suppressants application to unvegetated areas sufficient to limit VDE to 20% opacity. Specifies vegetation must be established to limit VDE to 20% opacity. Requires paving, applying gravel, or applying stabilizers to limit VDE to 20% opacity. Upon evidence of trespass, requires posting of “no trespass” signs or installing barriers to prevent access to area. Applies to non-agricultural areas of one-half acre or larger for residential use; and all non-residential areas. Requires application of chemical stabilizers; watering with sufficient frequency to establish a surface crust, or establishing drought-resistant vegetation as quickly as possible. <p>Note: This rule was amended April 2, 2004. The amendments clarify new Table 1 BACM and remove exemption for residential properties greater than one-half acre.</p> | <p>Existing</p> <p>Existing</p> | <p>SJVAPCD Rule 8051 11/15/01</p> <p>SCAQMD Rule 403 12/11/98</p> |

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| | Strategy | Source Type | District, Rule, and Adoption Date* |
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| 24. | <p>Paved Road Dust: New/Modified Public and Private Roads</p> <ul style="list-style-type: none"> Requires paved shoulders for all roads with average daily vehicle trips (ADVT) of 500 or more. If ADVT is 500-3000, then average shoulder width is 4 feet. If ADVT is greater than 3000, then average shoulder width is 8 feet. Curbing adjacent to and contiguous with a paved lane or shoulder can be used in lieu of shoulder width requirements. Intersections, auxiliary entry and exit lanes may be constructed adjacent to and contiguous with a paved roadway in lieu of shoulder requirements. Specifies if ADVT is 500 or greater, and medians are part of the roadway, then medians are to be constructed with minimum 4-foot shoulder widths adjacent to traffic lanes. Where speed limits are below 45 mph, medians are to be constructed with curbing. Specifies medians are to be landscaped to meet stabilized surface requirements. As an option to shoulder paving or vegetation requirements, oils or chemical dust suppressants can be used, according to the specified widths, and must be maintained to limit VDE to 20% opacity. Specifies requirements for contingency notification. Establishes curbing or paved shoulder requirements in the event of a contingency notification: For ADVT of 500 or more, curbing or paved shoulders are required, for ADVT of 500-3000, shoulder widths shall be of at least 4 feet, for ADVT greater than 3000, shoulder widths shall be of at least 8 feet. Establishes median requirements in the event of a contingency notification. For medians with ADVT of 500 or more, must pave median area with typical roadway materials, unless speed limits less than 45 mph, or medians are landscaped with ground cover and there is curbing, or medians are treated with chemical stabilizers to maintain stabilized surface. <p>Note: This rule was amended April 2, 2004. The amendments invoke contingency requirements for new / widened roads.</p> | <p>Existing</p> <p>Existing</p> | <p>SJVAPCD Rule 8061 11/15/01</p> <p>SCAQMD Rule 1186 9/10/99</p> |
| 25. | <p>Paved Road Dust: Erosion Clean-Up</p> <ul style="list-style-type: none"> Requires removal of material from public paved roads with AVDT greater than 500 by street sweeping within 72 hours of being notified of such accumulation. <p>Note: This rule was amended April 2, 2004.</p> | Existing | SCAQMD Rule 1186 9/10/99 |

*Date when rule was adopted or last amended

| | Strategy | Source Type | District, Rule, and Adoption Date* |
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| 26. | <p>Paved Road Dust: Street Sweeping Requires use of certified PM10 efficient street sweepers by governmental agencies or their street sweeping contractors where the contract date, purchase date, or lease date is after January 1, 2000. Specifies certified sweepers are to be used for all routine street sweeping except roads with curbs, paved road shoulders greater than 4 feet width, within 1000 feet of an unpaved road, and provided documentation of such is provided. Certified sweepers are to be maintained according to manufacturer's specifications.</p> <p>Note: This rule was amended April 2, 2004. The amendments remove certified equipment exemption.</p> | Existing | SCAQMD Rule 1186 9/10/99 |
| 27. | <p>Paved Road Dust: Street Sweeping Sand & Cinders Used for Anti-skid Material on Icy Roads, VMT Limit, & Free Bus Requires vacuum-street sweeping on roads to remove sand and cinders that were placed on the road during winter storms as an anti-skid material. Street sweeping is required after the roads dry sufficiently for the street sweepers to remove the material. This rule also limits the peak daily VMT (vehicle mile traveled) projected with future development, and encourages the use of a free bus system to reduce VMT.</p> | Existing | GBUAPCD for the Town of Mammoth Lakes Rule 431 12/07/90 |
| 28. | <p>Unpaved Parking Lots/Staging Areas Requires, for days with 75 or more vehicle trips, limiting VDE to 20% opacity and implementing at least one of the following control measures: 1) applying water, 2) applying uniform layer of washed gravel, 3) applying chemical/organic dust suppressant, 4) using vegetative materials, 5) paving, 6) using any other method to limit VDE to 20% opacity.</p> <p>Requires, for days with 100 or more vehicle trips, limiting VDE to 20% opacity, complying with requirements for stabilized surface, or implementing at least one of the following control measures: 1) applying water, 2) applying chemical/organic dust suppressant, 3) applying road mix, 4) paving, 5) using any other method that results in a stabilized surface.</p> <p>Requires, for days with 100 or more vehicle trips, limiting VDE to 20% opacity, complying with requirements for stabilized surface, or implementing at least one of the following control measures: 1) applying water, 2) applying chemical/organic dust suppressant, 3) applying road mix, 4) paving, 5) using any other method that results in a stabilized surface.</p> | Existing | SJVAPCD Rule 8061 11/15/01 |

*Date when rule was adopted or last amended

| | Strategy | Source Type | District, Rule, and Adoption Date* |
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| | <p>Unpaved Parking Lots/Staging Areas (continuation)</p> <p>Sets as an option to the above, obtaining a Fugitive PM₁₀ Management Plan which specifies that: 1) achieves at least 50% control efficiency, 2) describes location, length, and area of unpaved traffic areas, 3) describes traffic conditions (vehicle trips per unit time, types of vehicles, 4) describes control measures used and application details, and 5) describes expected results of road surface condition.</p> | | |
| 29. | <p>Unpaved Roads: Control Requirements</p> <ul style="list-style-type: none"> Requires, for days with 75 or more vehicle trips, limiting VDE to 20% opacity and implementing at least one of the following control measures: 1) applying water, 2) applying uniform layer of washed gravel, 3) applying chemical/organic dust suppressant, 4) using vegetative materials, 5) paving, or 6) using any other method to limit VDE to 20% opacity. <p>Requires, for days with 100 or more vehicle trips, limiting VDE to 20% opacity, complying with requirements for stabilized surface, or implementing at least one of the following control measures: 1) applying water, 2) applying chemical/organic dust suppressant, 3) applying roadmix, 4) paving, or 5) using any other method that results in stabilized surface.</p> <p>Sets as option to above, obtaining a Fugitive PM₁₀ Management Plan which specifies that: 1) achieves at least 50% control efficiency, 2) describes location, length, and area of unpaved traffic areas, 3) describes traffic conditions (vehicle trips per unit time, vehicle types), 4) describes controls measures used and application details, and 5) describes expected resulting road surface condition.</p> <p>Sets applicability standard: unpaved road must be more than 50 feet wide at all points or must not be within 25 feet of property line, or have more than 20 vehicle trips per day. Specifies all roads with ADT greater than the average ADT of all unpaved roads within its jurisdiction must be treated. Requires annual treatment of unpaved public roads beginning in 1998 and continuing for each of 8 years thereafter by implementing one of the following: 1) paving at least one mile with typical roadway material, 2) applying chemical stabilizers to at least two miles to maintain stabilized surface, 3) implementing at least one of the</p> | Existing Existing | <p>SJVAPCD Rule 8061 11/15/01</p> <p>SCAQMD Rule 1186 9/10/99</p> |

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*Date when rule was adopted or last amended

| | Strategy | Source Type | District, Rule, and Adoption Date* |
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| 32. | <p>Windblown Dust: Construction/Earth Moving</p> <p>Requires, for earthmoving, ceasing all active operations, applying water to soil not more than 15 minutes prior to moving such soil if subject to large operation requirements or if seeking an exemption from property line or upwind/downwind standard. Requires, for unpaved roads at construction sites, applying chemical stabilizers prior to a wind event, applying water twice per hour during active operations, stopping all vehicular traffic if subject to large operation requirements or if seeking an exemption from property line or upwind/downwind standard.</p> <p>Note: This rule was amended April 2, 2004.</p> | Existing | SCAQMD Rule 403 12/11/98 |
| 33. | <p>Windblown Dust: Disturbed Areas</p> <p>Requires, if operations remain inactive for not more than 4 consecutive days, application of water and chemical stabilizers in sufficient concentrations to maintain a stabilized surface for 6 months traffic if subject to large operation requirements or if seeking an exemption from property line or upwind/downwind standard. Requires application of chemical stabilizers prior to wind event; applying water 3 times per day; if evidence of wind driven fugitive dust, increasing watering to 4 times per day; or establish vegetative ground cover within 21 days after active operations have ceased traffic if subject to large operation requirements or if seeking an exemption from property line or upwind/downwind standard.</p> <p>Note: This rule was amended April 2, 2004.</p> | Existing | SCAQMD Rule 403 12/11/98 |
| 34. | <p>Windblown Dust: Bulk Materials/Storage Piles</p> <ul style="list-style-type: none"> Requires application of water twice per hour or installation of temporary coverings traffic if subject to large operation requirements or if seeking an exemption from property line or upwind/downwind standard. <p>Note: This rule was amended April 2, 2004.</p> <ul style="list-style-type: none"> Additional bulk material control requirements for Coachella Valley <p>Note: This rule was amended April 2, 2004.</p> | Existing | <p>SCAQMD Rule 403 12/11/98</p> <p>SCAQMD 403.1 1/15/93</p> |

*Date when rule was adopted or last amended

| | Strategy | Source Type | District, Rule, and Adoption Date* |
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| 35. | Wind Blown Dust: Open Areas Requires 50% vegetation cover, or 75% wet or saturated water cover, or 4-inch deep gravel on open areas that may cause or contribute to an exceedance of the federal PM-10 standard. | Existing | GBUAPCD for Owens Lake Board Order #981116-01 11/16/98 |
| 36. | Agricultural Operations <ul style="list-style-type: none"> Limits fugitive dust from agricultural sources by requiring producers to draft and implement a Fugitive Dust Management Plan with district approved control methods Producers that voluntarily implement district approved conservation practices and complete and maintain the self-monitoring plan can maintain an exemption from the Rule 403 general requirements. April 2004 amendments extend applicability to Coachella Valley. Note: This rule was amended April 2, 2004 Cease tilling/mulching activities when wind speeds > 25 mph (Coachella Valley) Note: This rule was amended April 2, 2004 Limits fugitive dust from paved and unpaved roads and livestock operations by requiring: 1) ceasing all hay grinding activities between 2 and 5 p.m. if visible emissions extend more than 50 feet from a hay grinding source, and 2) treating all unpaved access connections to livestock operations and unpaved feed lane access areas with either pavement, gravel (maintained to a depth of 4 inches), or asphaltic road-base. Note: This rule was amended April 2, 2004 Reduces fugitive dust from livestock feed yards by requiring a dust plan that contains procedures assuring moisture factor between 20% and 40% for manure in the top three inches of occupied pens and outlines manure management practices, including removal. | <p>Existing</p> <p>Existing</p> <p>Existing</p> <p>Existing</p> <p>Existing</p> | <p>SJVAPCD Rule 8081 11/15/01</p> <p>SCAQMD Rule 403 12/11/98</p> <p>SCAQMD 403.1 1/5/93</p> <p>SCAQMD Rule 1186 9/10/99</p> <p>ICAPCD Rule 420 8/13/02</p> |

Note: SCAQMD Rule 403.1 (Supplemental Fugitive Dust Control Requirements for Coachella Valley Sources) has additional requirements for Coachella Valley in several of the above fugitive dust categories (last amended 4/2/04).

Reference: District rules and regulations can be obtained at <http://www.arb.ca.gov/drdb/drdb.htm>

*Date when rule was adopted or last amended

District Stationary and Area Source Rules

Adopted Strategies

Pollutant addressed depends on the rule. Some rules reduce directly emitted PM10 and PM2.5, NOx, VOC, ammonia, or a combination of any of these pollutants.

| | Strategy | Source Type | District, Rule, and Adoption Date* |
|----|---|---|--|
| 1. | <p>Combustion Sources (NOx) Boilers, Steam Generators, and Process Heaters</p> <ul style="list-style-type: none"> Limits NOx emissions from gaseous fuel or liquid fuel fired boilers, steam generators, or process heaters with a total rated heat input greater than 5 million Btu per hour to between 9-40 ppmv depending on fuel type, use, and burner capacity. Limits NOx emissions from gaseous, liquid, or solid fossil fuel fired boilers, steam generators, or process heaters with a total rated heat input starting at 2 million Btu/hr up to 5 million Btu/hr used in any industrial, institutional, or commercial operation to 30 ppmv or 0.037 pounds per million Btu of heat input. Limits NOx emissions from natural gas-fired large (commercial) water heaters, small (industrial) boilers, and process heaters that have a rated heat input starting at 75,000 Btu/hr up to and including 2 million Btu/hr to between 30-40 ppmv depending on burner size. Exempts residential and low use units. <p>Turbines</p> <ul style="list-style-type: none"> Limits NOx emissions to the atmosphere from the operation of stationary gas turbines to between 9-65 ppmv depending on turbine operating capacity, yearly run time, and fuel type. Exemptions include emergency standby and laboratory units. Limits NOx emissions from the operation of turbines to 9 ppm for turbines in size range of 2.9 to 10 MW. | <p>New, existing and modified</p> <p>New, existing and modified</p> <p>New, existing and modified</p> <p>New, existing and modified</p> <p>New and existing</p> | <p>SJVAPCD Rule 4306 9/18/03</p> <p>SCAQMD Rule 1146.1 5/13/94</p> <p>SCAQMD Rule 1146.2 1/9/98</p> <p>SMAQMD Rule 413 5/1/97 and SJVAPCD Rule 4703 4/25/02</p> <p>SCAQMD Rule 1134 08/08/97</p> |

*Date when rule was adopted or last amended

| | Strategy | Source Type | District, Rule, and Adoption Date* |
|----|--|---|---|
| 2. | IC Engines <ul style="list-style-type: none"> Limits NOx to 2000 ppm for rich-burn and 150 ppm for lean-burn engines. Limits NOx emissions from stationary and portable engines over 50 bhp to 36 ppm or higher depending on use category of engine (i.e. portable, stationary, oil field, fired by sewage digester gas, etc.) Limits NOx emissions from spark ignited internal combustion engines over 50 bhp to 25 ppm to 70 ppm depending on use category of engine and engine size. | New, existing and modified | SCAQMD Rule 1110.1 10/4/1985 SCAQMD Rule 1110.2 11/14/97 SJVAPCD Rule 4702 8/21/03 |
| 3. | Lime Kilns (NOx) Limits NOx emissions from lime kilns to between 0.10-0.20 lbs/MM BTU depending on fuel type. | New, existing and modified | SJVAPCD Rule 4313 3/27/03 |
| 4. | Cement Kilns (NOx, PM) <ul style="list-style-type: none"> Limits NOx emissions from cement kilns during periods of operation other than start-up or shut-down to between 6.4-7.2 lb/ton clinker produced averaged over a 30 day period depending on kiln type. Additional limits are specified for start-up and shut-down periods. Limits PM emissions to 30 pounds per hour for kiln feed rates of 75 tons per hour or greater. Limits PM emissions to 0.40 pound per ton of kiln feed for kiln feed rates less than 75 tons per hour. | New, existing, and modified New and existing | MDAQMD Rule 1161 3/25/02 SCAQMD Rule 1112.1 02/07/86 |
| 5. | Furnaces (NOx, VOC) <ul style="list-style-type: none"> Glass Melting Furnaces Sets NOx limits of 4.0 pounds per ton of glass pulled for glass melting furnaces. Central Furnaces Set a NOx emission limit of 40 ng/joule for gas fired residential units with rating less than 175,000 BTU/hour. | New and existing | SCAQMD Rule 1117 – Amended 01/06/84 SCAQMD Rule 1111 07/08/83 |

*Date when rule was adopted or last amended

| | Strategy | Source Type | District, Rule, and Adoption Date* |
|-----|--|-----------------------------|---|
| 6. | Residential Water Heaters (NO_x) Limits NO _x emissions from water heaters with heat input rates less than 75,000 Btu per hour to between 35-46.5 lbs NO _x /billion Btu. | New | SCAQMD Rule 1121 12/10/99 |
| 7. | Commercial Charbroiling Operations (VOC and PM_{2.5}) Requires new and existing chain driven charbroilers to be equipped with a catalytic oxidizer control device. | New and existing | SJVAPCD Rule 4692 3/21/02 and SCAQMD Rule 1138 11/14/97 |
| 8. | Catalytic Cracking Units (PM₁₀ and ammonia) Establishes emission limits for filterable PM ₁₀ and ammonia; and requires periodic source testing, monitoring, reporting, and record-keeping of PM ₁₀ and ammonia emissions as well as equipment operating parameters to ensure compliance. | New, existing, and modified | SCAQMD Rule 1105.1 11/7/03 |
| 9. | Woodworking Operations (PM₁₀) Requires any woodworking facility that uses a pneumatic conveyance system connected to woodworking equipment to vent sawdust emissions to a PM ₁₀ emissions control device, such that there are no visible emissions; to cover sawdust storage bins at all times; and to take measures to prevent visible emissions from waste disposal activities to cross any property line. | New, existing, and modified | SCAQMD Rule 1137 2/1/02 |
| 10. | Composting and Related Operations – General Administrative Requirements Requires composting and chipping and grinding facilities to register and provide facility and throughput information including, general facility information, type and amount of feedstock, products generated and process description. Annual updates also required. | New, existing, and modified | SCAQMD Rule 1133 1/10/03 |
| 11. | Chipping and Grinding Operations (Ammonia and VOC) Prevents inadvertent decomposition associated with stockpiling of green and/or food wastes by establishing holding or processing time requirements for chipping and grinding activities. | New, existing, and modified | SCAQMD Rule 1133.1 1/10/03 |

*Date when rule was adopted or last amended

| | Strategy | Source Type | District, Rule, and Adoption Date* |
|-----|--|---|---|
| 12. | <p>Composting (Ammonia and VOC)</p> <p>Requires co-composting operations (biosolids and/or manure combined with bulking agents) to reduce VOC and ammonia emissions by 80 percent by conducting active composting within a total permanent enclosure and conducting curing using an aeration system that operates under negative pressure for a least 90 percent of its operating cycle and venting of VOC and ammonia emission to a control device (biofilter). As an alternative, facilities subject to this rule may also submit a compliance plan that presents and demonstrates an alternative method of compliance. The rule requires recordkeeping and source testing which includes the submittal of a testing protocol. Exemptions are also provided for facilities that meet certain specific requirements.</p> | New, existing, and modified | SCAQMD Rule 1133.2 1/10/03 |
| 13. | <p>Storage, Transfer, and Dispensing Operations (VOC)</p> <ul style="list-style-type: none"> <p>Gasoline Transfer and Dispensing Facilities</p> <p>Limits emissions of volatile organic compounds (VOC) from gasoline dispensing facilities through equipment and operational requirements. For equipment and testing requirements see ARB Executive Orders.</p> <p>Storage Tanks</p> <p>Limits VOC emissions from storage tanks located at petroleum facilities through operational and equipment requirements.</p> <p>Organic Liquid Storage and Transfer</p> <p>Limits VOC emissions from storage tanks through operational and equipment requirements.</p> <p>Storage Tank Degassing</p> <p>Sets forth conditions for the cleaning and degassing of aboveground and underground stationary tanks, reservoirs, or other containers storing or last used to store VOCs.</p> | <p>New, existing and modified</p> <p>New, existing and modified</p> <p>New, existing and modified</p> <p>New, existing and modified</p> | <p>BAAQMD Rule 8-7 11/6/02</p> <p>SCAQMD Rule 1178 12/12/01</p> <p>BAAQMD Rule 8-5 11/27/02</p> <p>SCAQMD Rule 1149 7/14/95</p> |

*Date when rule was adopted or last amended

| | Strategy | Source Type | District, Rule, and Adoption Date* |
|-----|--|---|--|
| 14. | <p>Leaks and Releases (VOC)</p> <ul style="list-style-type: none"> • Equipment Leaks (Valves and Flanges) Limits VOC and methane emissions from leaking equipment at petroleum refineries, chemical plants, bulk plants, and bulk terminals including, but not limited to: valves, connectors, pumps, compressors, pressure relief devices, diaphragms, hatches, sight-glasses, fittings, sampling ports, meters, pipes, vessels, and refinery wastewater collection system components to between 100-500 ppm depending on equipment type. Note: This rule was amended January 21, 2004. Limits VOC emissions from leaking at petroleum facilities and chemical plants by setting forth leak standards and requirements for component identification, operator inspection, maintenance, and atmospheric PRDs. • Hydrogen Plant Vents Limits VOC emissions from hydrogen plant process vents so that emissions from all process vents of the plant combined are less than 2.5 pounds of VOC per million standard cubic feet of hydrogen produced. | <p>New, existing and modified</p> <p>New, existing and modified</p> <p>New, existing and modified</p> | <p>BAAQMD Rule 8-18 11/27/02</p> <p>SCAQMD Rule 1173 12/6/02</p> <p>SCAQMD Rule 1189 1/21/00</p> |
| 15. | <p>Thermally Enhanced Oil Recovery Wells (VOC) Requires uncontrolled VOC emissions from steam-enhanced crude oil production wells vents to be reduced by at least 99 percent by weight. For cyclic wells located on properties with less than ten (10) cyclic wells, owned by a company, requires uncontrolled VOC emissions from any well vent or system of well vents connected to a single vapor collection and control device to be reduced by at least 50 percent.</p> | New, existing and modified | SJVAPCD Rule 4401 1/15/98 |
| 16. | <p>Product Manufacturing (VOC)</p> <ul style="list-style-type: none"> • Aerospace Assembly and Component Manufacturing Limits VOC emissions from aerospace assembly and component manufacturing operations by limiting product VOC content to between 200-1000 g/l depending on product. | New, existing and modified | SCAQMD Rule 1124 9/21/01 |

*Date when rule was adopted or last amended

| | Strategy | Source Type | District, Rule, and Adoption Date* |
|--|---|---|--|
| | <p>Product Manufacturing (continuation)</p> <ul style="list-style-type: none"> Polystyrene, Polyethylene, and Propylene Foam Products Limits VOC emissions from the manufacture of foam products composed of polystyrene, polyethylene or polypropylene to between 2.4-2.8 lbs of VOC emissions per 100 lbs of product produced and by requiring emission abatement devices. A control device with at least 98% efficiency may be used in lieu of the above emissions requirements. Food Product Manufacturing and Processing Limits VOC emissions from solvents used in food product manufacturing and processing operations by limiting the VOC content of products used to between 120-400 g/l depending on product, or by the use of a control device. Resin Manufacturing Sets forth VOC control requirements for resin manufacturing. Polyester Resin Operations Limits VOC emissions from all polyester resin operations that fabricate, rework, repair, or touch-up products through operational controls and by limiting the monomer content of products to between 28%-50% depending on product type. Pharmaceuticals and Cosmetics Manufacturing Operations Sets forth equipment and operational requirements for pharmaceuticals and cosmetic manufacturing. Coatings and Ink Manufacturing Sets forth operational and “housekeeping” requirements for coatings and ink manufacturing. Surfactant Manufacturing Requires the total emissions of VOCs from the surfactant manufacturing equipment, before being vented to the atmosphere, be reduced to 0.5 pound per 1000 pounds of surfactant produced or by 95 percent (wt) or more; and all ports used for inspection, taking samples, or adding ingredients must be closed when not in use. | <p>New, existing and modified</p> <p>New, existing and modified</p> <p>New, existing and modified</p> <p>New, existing and modified</p> <p>New, existing and modified</p> <p>New, existing and modified</p> <p>New, existing and modified</p> | <p>BAAQMD Rule 8-52 7/7/99</p> <p>SCAQMD Rule 1131 10/8/99</p> <p>SCAQMD Rule 1141 11/17/00</p> <p>SCAQMD Rule 1162 11/9/01</p> <p>SCAQMD Rule 1103 3/12/99</p> <p>SCAQMD Rule 1141.1 11/17/00</p> <p>SCAQMD Rule 1141.2 1/11/02</p> |

*Date when rule was adopted or last amended

| | Strategy | Source Type | District, Rule, and Adoption Date* |
|-----|--|--|---|
| | <p>Product Manufacturing (continuation)</p> <ul style="list-style-type: none"> Fiberboard Manufacturing Limits VOC emissions from fiberboard manufacturing by requiring use of capture and control systems with specified efficiencies Control of Emissions from the Manufacture of Polymeric Cellular Products (Foam) Sets forth emission limits for polymeric cellular products manufacturing operations. All steps of the manufacturing operation and the storage of the final product for a maximum of 48 hours are subject to the requirements of this rule. Sets VOC limits for polystyrene, polyethylene, and polypropylene foam product manufacturing operations. | <p>New, existing, and modified</p> <p>New, existing, and modified</p> <p>New, existing, and modified</p> | <p>PCAPCD Rule 229 6/28/94</p> <p>SCAQMD Rule 1175 5/13/94</p> <p>BAAQMD Rule 8-52 7/7/99</p> |
| 17. | <ul style="list-style-type: none"> Graphic Arts (VOC) Limits VOC emissions from graphic arts operations by limiting the VOC content of products to between 150-300 g/l or by installing a control device. | New, existing and modified | SCAQMD Rule 1130 10/8/99 |
| 18. | <p>Coating Operations (VOC)</p> <ul style="list-style-type: none"> Architectural Coatings Several districts have adopted regulations consistent with ARB's Suggested Control Measure (SCM) which limits the content of VOCs in architectural coatings to between 100-730 g/l. ARB's SCM was adopted in June 22, 2000. For example see rules adopted by SJVAQMD, SDAPCD, SMAQMD, SBAPCD, TeCAPCD. The SCAQMD Rule 113, in addition to ARB's SCM limits, includes significantly more stringent future VOC limits. Paper, Fabric, and Film Coating Operations This rule applies to all persons applying coatings or wash primers to paper, fabric, or film substrates. The drying and curing processes covered under this rule include, but are not limited to, heated, forced-air dried, and non-heated processes. The rule specifies VOC content of applicable coatings and sets forth application method and cleaning requirements. | <p>New, existing and modified</p> <p>New, existing and modified</p> | <p>SCAQMD Rule 113 12/5/03</p> <p>SCAQMD Rule 1128 3/8/96</p> |

*Date when rule was adopted or last amended

| | Strategy | Source Type | District, Rule, and Adoption Date* |
|--|---|---|---|
| | <p>Coating Operations (continuation)</p> <ul style="list-style-type: none"> <i>Metal Parts and Products Coatings</i> Limits VOC emissions from the coating of metal parts and products not regulated by other specific regulations by limiting coating VOC content to between 2.3-3.5 lbs/gal depending on process and coating type. Note: SCAQMD regulates surface prep and cleanup solvents for this rule category separately under Rule 1171. <i>Metal Container, Closure, and Coil Coating Operations</i> Limits VOC emissions from metal container, metal closure and metal coil coating operations through operational controls and by limiting the VOC content of products to between 20-660 g/l depending on product type. <i>Glass Coatings</i> Limits VOC emissions from the coating of glass products by limiting the VOC content of coating products to between 2.3-6.7 lbs/gal, depending on the product, or installing control equipment. <i>Motor Vehicle Assembly Line Coating Operations</i> Sets forth VOC emission limits and VOC content of motor vehicle coatings. This rule applies to all assembly line coating operations conducted during the manufacturing of new motor vehicles. <i>Vehicle Refinishing</i> Limits VOC emissions from coatings applied on Group I Vehicles and Equipment and Group II Vehicles through operating requirements and by limiting VOC content of products to between 2.8-7.0 lbs/gal. <i>Screen Printing Operations</i> Specifies VOC content of screen printing materials and applies to persons performing screen printing operations or who sell, distribute, or require the use of screen printing materials. <i>Plastic, Rubber, and Glass Coatings</i> Specifies VOC content of coatings used on plastic, rubber, and glass and sets forth transfer efficiency requirements. The rule allows for use of an approved emission control system in lieu of VOC content limits. | <p>New, existing and modified</p> <p>New, existing and modified</p> <p>New, existing and modified</p> <p>New, existing and modified</p> <p>New, existing and modified</p> <p>New, existing and modified</p> <p>New, existing and modified</p> | <p>SCAQMD Rule 1107 11/9/01</p> <p>SDCAPCD Rule 67.4 5/15/96</p> <p>SJVAPCD Rule 4610 4/17/03</p> <p>SCAQMD Rule 1115 5/12/95</p> <p>SCAQMD Rule 1151 12/11/98</p> <p>SCAQMD Rule 1130.1 12/13/96</p> <p>SCAQMD Rule 1145 2/14/97</p> |

*Date when rule was adopted or last amended

| | Strategy | Source Type | District, Rule, and Adoption Date* |
|--|---|---|--|
| | <p>Coating Operations (continuation)</p> <ul style="list-style-type: none"> Spray Booth Facilities Further reduces VOC emissions from spray coating or laminating operations in high VOC-emitting facilities. This rule applies to any spray booth facility, except petroleum industry facilities, that uses VOC-containing materials that amount to more than 40,000 pounds (20 tons) per year of VOC emissions in any emission inventory year and requires that emissions be reduced by 65% beyond applicable rule requirements through the use of a control device or low VOC product. Wood Coatings Limits VOC content of coatings, inks, and adhesives applied to wood flat stock for the purpose of manufacturing a finished wood panel intended for attachment to the inside walls of buildings, including, but not limited to, homes and office buildings, mobile homes, trailers, prefabricated buildings and similar structures, boats, and ships, or a finished exterior wood siding intended for use in construction to 2.1 lbs/gal. A control device may be installed in lieu of the VOC requirement. SCAQMD regulates surface prep and cleanup solvents for this rule category separately under Rule 1171. <p>Limits VOC emissions from coatings and strippers used on wood products, and from products used for wood product coating surface preparation and cleanup through operating requirements and by limiting the VOC content of coatings and strippers to between 350-750 g/l depending on product.</p> <ul style="list-style-type: none"> Wood Products Coatings Specifies VOC content of wood products coatings between 275-750 g/l depending on product. The rule allows for use of an approved emission control system in lieu of VOC content limits and also includes an averaging provision. Exempts facilities that use less than one gallon of coatings per day. <p>Specifies VOC content of wood products coatings between 275-750 g/l depending on product and sets forth transfer efficiency requirements. The rule allows for use of an approved emission control system in lieu of VOC content limits and also includes an averaging provision. Exempts facilities that use less than 55 gallons of coatings per year.</p> | <p>New, existing and modified</p> <p>New, existing and modified</p> <p>New, existing and modified</p> <p>New, existing and modified</p> <p>New, existing and modified</p> | <p>SCAQMD Rule 1132 1/19/01</p> <p>SCAQMD Rule 1104 8/13/99</p> <p>YSAQMD Rule 2.39 2/10/99</p> <p>SMAQMD Rule 463 7/23/98</p> <p>SCAQMD Rule 1136 6/14/96</p> |

*Date when rule was adopted or last amended

| | Strategy | Source Type | District, Rule, and Adoption Date* |
|-----|--|---|--|
| | <p>Coating Operations (continuation)</p> <ul style="list-style-type: none"> Marine Coating Operations Applies to coating operations of marine and fresh water vessels, oil drilling platforms, navigational aids and component parts; and structures intended for exposure to a marine environment. Limits VOC emissions from marine coatings by limiting VOC content of coatings to between 275-650 g/l depending on product. Requires use of non-VOC materials for surface preparation and equipment cleaning. Allows use of specified air pollution control equipment which captures VOC emissions associated with coating, cleaning, and surface preparation, in lieu of use of low-VOC coatings and non-VOC materials used in cleaning and surface preparation. Magnet Wire Coating Operations This rule applies to all coating operations on magnet wire, where the wire is continuously drawn through a coating applicator. Under this rule, any person shall not use or apply any magnet wire coating which contains more than 200 grams VOC per liter (1.67 lb/gal) of coating less water and less exempt compounds. The rule also provides for use of approved emission control systems. Adhesives and Sealants Reduces VOC emissions from the application of adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers, or any other primers through operational controls and by limiting the VOC content of products to between 30-850 g/l depending on product type. | <p>New, existing and modified</p> <p>New, existing and modified</p> <p>New, existing and modified</p> | <p>SDAPCD Rule 67.18 5/15/96</p> <p>SCAQMD Rule 1126 1/13/95</p> <p>SCAQMD Rule 1168 10/3/2003</p> |
| 19. | <p>Solvent Cleaning and Degreasing (VOC)</p> <ul style="list-style-type: none"> Cleaning Operations Limits VOC emissions from solvent cleaning operations and activities by reducing VOC content of cleaning products to between 25 g/l-900 g/l depending on process. Degreasing Operations Limits VOC emissions from batch-loaded cold cleaners, open-top vapor degreasers, all types of conveyORIZED degreasers, and air-tight and airless cleaning systems that carry out solvent degreasing operations with solvent containing VOCs through operating requirements and by limiting product VOC content to 25 g/l. | <p>New, existing and modified</p> <p>New, existing and modified</p> | <p>SCAQMD Rule 1171 11/7/03</p> <p>SCAQMD Rule 1122 12/6/02</p> |

*Date when rule was adopted or last amended

| | Strategy | Source Type | District, Rule, and Adoption Date* |
|-----|--|-----------------------------|---|
| 20. | Solvent Cleaning and Degreasing (continuation) <ul style="list-style-type: none"> Use of Solvents Limits VOC emissions from VOC containing materials or equipment not subject to VOC limits in any other, specific district regulation to no more than 833 lbs/month. A control device may be used in lieu of the monthly throughput limit. | New, existing and modified | SCAQMD Rule 442 12/15/00 |
| 21. | Soil Decontamination (VOC) <ul style="list-style-type: none"> Limits the emissions of organic compounds from soil that has been contaminated by organic chemical or petroleum chemical leaks or spills, and requires description of an acceptable procedure for controlling emissions from underground storage tanks during removal or replacement through the use of operational requirements and by limiting the amount of soil to be processed daily. Limits VOC emissions from excavating, grading, handling and treating VOC contaminated soil as a result of leakage from storage or transfer operations, accidental spillage, or other deposition by requiring that soil with VOC concentrations above 1000 ppm be containerized, sealed, and shipped away for disposal. | New, existing and modified | BAAQMD Rule 8-40 12/15/99 |
| 22. | Solid Waste Landfills (VOC) <ul style="list-style-type: none"> Limits VOC emissions from municipal solid waste landfills. through installation of gas collection and control systems. Limits VOC emissions from the waste decomposition process at solid waste disposal sites through requirements for gas collection and control systems. | New, existing, and modified | SCAQMD Rule 1150.1 3/17/00 |
| 23. | Geothermal Well Operations (PM, SO_x) Limits PM emissions from geothermal well drilling based on steam rate. Limits SO ₂ emissions from geothermal operations to no more than 1000 ppm(v). | New, existing, and modified | BAAQMD Rule 834 10/6/99 |
| | | | MeCAQMD Rule 1-400, Rule 1-455 5/6/03 |

Reference: District rules and regulations can be obtained at <http://www.arb.ca.gov/drdb/drdb.htm>

*Date when rule was adopted or last amended

District General Rules to Reduce Directly Emitted PM from Stationary and Area Sources

Adopted Strategies

These rules are generic and apply to sources that may not be regulated through a specific rule or permit requirement. The rules are intended to reduce directly emitted PM₁₀ and PM_{2.5}.

| | Strategy | Source Type | District, Rule, and Adoption Date* |
|----|--|----------------------------|------------------------------------|
| 1. | Visible Emission Limits (PM ₁₀ , PM _{2.5}) Prohibits discharges into the atmosphere from any single source of emission of any air contaminant for a period or periods aggregating more than 3 minutes in any 1 hour which is: 1) as dark or darker in shade as that designated as No. 1 on the Ringlemann Chart (20% opacity), as published by the United States Bureau of Mines, or 2) of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in 1). Provides the option of exempting permitted outdoor residential burns. Note: Several districts have adopted similar rules (e.g., SMAQMD, BAAQMD, SCAQMD, San Diego County APCD) | New, existing and modified | MaCAPCD Rule 202 9/17/74 |
| 2. | Combustion Contaminants (PM _{2.5}) Prohibits discharges into the atmosphere from the burning of fuel of combustion contaminants exceeding 0.23 gram per cubic meter (0.1 grain per cubic foot) of gas calculated to 12% of carbon dioxide at standard conditions averaged over a minimum of 25 consecutive minutes. | New, existing and modified | MDAQMD Rule 409 5/7/76 |
| 3. | Grain Loading (PM ₁₀) Prohibits release or discharge into the atmosphere from any source or single processing unit, exclusive of sources emitting combustion contaminants only, PM emissions in excess of 0.1 grains per cubic foot of dry exhaust gas at standard conditions. | New, existing and modified | MaCAPCD Rule 207 11/9/76 |

Reference: District rules and regulations can be obtained at <http://www.arb.ca.gov/drdb/drdb.htm>

*Date when rule was adopted or last amended

District Programs that Reduce PM Emissions from Mobile Sources

Adopted Strategies

Measures primarily reduce directly emitted PM₁₀, PM_{2.5}, NO_x, and VOC.

| | Strategy | Source Type | District, Rule, and Adoption Date* |
|----|---|-----------------|---|
| 1. | <p>Fleet Rules Authority to adopt fleet rules varies by air district depending on federal attainment status or specific provisions in State law.</p> <ul style="list-style-type: none"> Clean On-Road Transit Buses Requires purchase or lease of new transit vehicle or urban bus purchases or leases to be alternative-fuel heavy-duty vehicles (HDVs) when adding or replacing buses to: 1) public transit fleets with 15 or more transit vehicles or urban buses as of the rule adoption date, and 2) municipal fleets with 15 to 99 transit vehicles or urban buses by July 1, 2001. Private transit operators contracted by a transit agency or a government agency shall meet the requirements applicable to the contracting agency. Clean On-Road Residential and Commercial Refuse Collection Vehicles Requires, beginning July 1, 2001, all new transfer or rolloff vehicles for fleets of 15 or more vehicles be an alternative-fuel, pilot ignition, or dual-fuel HDV. Beginning July 1, 2002, requires operators of public and private fleets with 15 or more solid waste collection vehicles or a combined total of 15 or more rolloff, transfer, or solid waste collection vehicles to purchase or lease alternative-fuel or pilot ignition HDVs, when adding or replacing solid waste collection vehicles to their fleet. Alternatively, prior to July 1, 2004, fleet operators must purchase dual-fuel HDVs when adding or replacing solid waste collection vehicles. Commercial Airport Ground Access Beginning July 1, 2001, requires airport fleet operators providing transit shuttle services to airport parking lots, car rental lots, or hotels/motels, all new HD transit vehicles purchases or leases to be alternative-fueled vehicles when adding or replacing transit vehicles to their vehicle fleet. In addition, the rule requires, starting at specified dates, limousine or transit shuttles services fleets, shuttle van services fleets, and taxicab fleets purchase or lease vehicles that have been certified by ARB to meet ULEV, SULEV, or ZEV | New or modified | <p>SCAQMD Rule 1192 6/16/00</p> <p>SCAQMD Rule 1193 6/6/03</p> <p>SCAQMD Rule 1194 10/20/00</p> |

*Date when rule was adopted or last amended

| | Strategy | Source Type | District, Rule, and Adoption Date* |
|--|---|-------------|--|
| | <p>Fleet Rules (continuation)</p> <p>emission standards. Taxicab fleet operators participating in voluntarily early purchase of alternative-fueled vehicles, could apply for funding to offset the purchase cost. Vehicles exempted from the rule include long-distance service vehicles and vehicles that are converted to be wheelchair accessible.</p> <ul style="list-style-type: none"> Clean On-Road School Buses Requires, by specified dates, additions or replacements of school buses to existing public or private school bus fleets with 15 or more buses to purchase or lease: 1) new alternative-fueled school buses or pre-owned repowered or alternative-fueled buses, or 2) new medium-duty non-diesel powered school buses certified by ARB as ULEV or cleaner or pre-owned medium-duty non-diesel powered school buses certified as LEV or cleaner. Diesel school bus fleets are exempt from the rule requirements, if sufficient grant funding or external sources of funding beyond that of the school bus fleet operator's fiscal budget is not available to fully offset the differential purchase cost of a diesel bus equipped with an approved control device, but the rule specifies alternatives. Clean On-Road Heavy-Duty Public Fleet Vehicles Requires, beginning July 1, 2002, for public operators with 15 or more HDV, all new additions to an existing fleet, or formation of a new fleet of HDV shall be by purchase or lease of alternative-fuel HD engine or vehicles, dual-fuel HDV, or dedicated gasoline HDV. If the fleet operator has an approved Technical Infeasibility Certification for this purchase or lease, the operator shall purchase or lease a diesel-powered HD engine or vehicle with an approved control device and maintain the control device per manufacturer's specifications. Exemptions include specified emergency and rescue vehicles, military vehicles, vehicles used routinely in transport of materials out of the district, and specified public agency fleets. Less Polluting Sweepers Beginning July 1, 2002, requires a fleet operator to purchase or lease an alternative-fuel sweeper. Alternatively, if the fleet operator has an approved Technical Infeasibility Certification for this purchase or lease, before July 1, 2004, the operator shall purchase or lease a non-alternative fueled sweeper with all applicable control devices; maintain the control devices per manufacturer's | | <p>SCAQMD Rule 1195 4/20/01</p> <p>SCAQMD Rule 1196 10/20/00</p> <p>SCAQMD Rule 1186.1 8/18/00</p> |

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| | <p>Fleet Rules (continuation)</p> <p>specification; and if using diesel fuel, fuel the sweeper with low-sulfur diesel fuel only. Requires any affected government agency that signs a contract after July 1, 2002 for sweeping services to contract services that use alternative-fuel sweepers. If no bids for sweeping contractors using alternative-fuels are submitted, the agency must contract for a non-alternative fueled sweeper, ensure that it is only fueled with low-sulfur diesel fuel, and is outfitted with all applicable control devices that are maintained per manufacturer's specification.</p> <ul style="list-style-type: none"> • Clean On-Road Light- and Medium-Duty Public Fleet Vehicles Requires, beginning July 1, 2001, public fleet operators of 15 or more vehicles to procure light- or medium-duty vehicles that have been certified by the ARB as meeting the LEV, ULEV, SULEV, or ZEV emission standards, or otherwise certified by ARB as equivalent low-emitting gasoline or alternative-fuel vehicles, when adding or replacing vehicles to their vehicle fleet. Lists exempted vehicles (e.g., emergency, law enforcement, evaluation/test vehicles) | | SCAQMD Rule 1191 6/16/00 |
| 2. | <p>Incentive Programs A funding source is needed in order to rely on incentives programs.</p> <ul style="list-style-type: none"> • DMV Funds (AB 2766 Funds): Motor Vehicle Registration Fee Program (Many districts implement this program) State law authorizes air districts to assess Motor Vehicle Registration fees of between \$2-\$4 (MV Fees) to reduce air pollution from motor vehicles and for related planning, monitoring, enforcement, and technical studies necessary for the implementation of the California Clean Air Act. ARB's guidance stresses funding cost-effective projects that help implement clean air plans and that reduce the most emissions per dollar spent. Example: SCAQMD's Mobile Source Review Committee; BAAQMD's Transportation Fund for Clean Air (vehicle buy-back clean school buses, vehicle incentives, etc.); SJVAPCD's REMOVE Program; | | |

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| | <p>Incentive Programs (continuation)</p> <ul style="list-style-type: none"> Heavy-Duty Engine Incentive Program Helps fleets pay for new lower emission heavy-duty engines, lower emission retrofits, and engine replacements. Public and private fleets are eligible if they use medium or heavy-duty on-road gas or diesel vehicles over 14,000 pounds gross weight or off-road commercial equipment including construction, agricultural, stationary agricultural water pump, commercial marine vessels, locomotives, forklifts, or airport ground support equipment. The program is funded by the air district and by the Carl Moyer Incentive Program sponsored by ARB. Provides incentive funds for the differential cost associated with the reduced emission technology as compared with the cost of conventional technology. Eligible funding categories include heavy-duty on-road vehicles, off-road vehicles, locomotives, marine vessels, electric forklifts, electric airport ground support equipment and stationary agricultural irrigation pump engines. The SJVAPCD received \$25 million in State transportation funds from special legislation for the Valley Emergency Clean Air Program (VECAP). The air district added the VECAP funds to the Heavy Duty Engine Incentive Program. Lower Emission School Bus Program The Lower-Emission School Bus Program provides financial incentives to school districts to replace older school buses using both air district and ARB grant funding. Moyer Program (Most districts currently implement this program) The Carl Moyer Memorial Air Quality Standards Attainment Program provides funds on an incentive-basis for the incremental cost of cleaner than required engines and equipment. Eligible projects include cleaner on-road, off-road, marine, locomotive and stationary agricultural pump engines, as well as forklifts, airport ground support equipment, and auxiliary power units. The program achieves near-term reductions in NOx and PM emissions. | | <p>SMAQMD</p> <p>SJVAPCD</p> <p>BAAQMD VCAPCD SCAQMD</p> <p>Most Districts</p> |

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| | <p>Incentive Programs (continuation)</p> <ul style="list-style-type: none"> Sacramento Emergency Clean Air Transportation (SECAT) Program Encourages cleanup of the existing HDD truck fleet by providing funds to pay for the cost of retrofitting existing engines with newer, cleaner engines or paying a significant amount of the cost of a newer vehicle. The goal is to reduce NOx emissions from HDD trucks by 3 tons per day by 2005 by upgrading 3,000 to 6,000 trucks. The program will disperse a total of \$70 million by 2005 (from State transportation funds under special legislation plus funds from the federal Congestion Mitigation and Air Quality Improvement (CMAQ) Program. Light and Medium Duty Vehicle Program Provides incentives for certain new on-road original equipment manufacturer (OEM) alternative fuel vehicles with a Gross Vehicle Weight Rating (GVWR) up to 14,000 pounds, including passenger cars, pick-up trucks, small buses, and vans. Vehicles must be certified by the ARB as achieving standards for ULEV, SULEV, or ZEV vehicles. With the exception of hybrid electric vehicles, no vehicles with the ability to operate on gasoline or diesel fuel are funded. Lawn Mower Buy Back Program Encourages trading of gasoline-powered mowers, by providing funds to offset the purchase cost of electric mowers (e.g., in early 2004, the SMAQMD participated in a program that paid 50% of the purchase price for 700 mowers). | | <p>SMAQMD</p> <p>SJVAPCD</p> <p>BAAQMD SJVAPCD SMAQMD SCAQMD</p> |

Reference: District rules and regulations can be obtained at <http://www.arb.ca.gov/drdb/drdb.htm>

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